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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

MAILED

Application Number: 10/689,970
Filing Date: October 20, 2003
Appellant(s): FOSTER ET AL.

OCT 02 2007

GROUP 3600

Andre L. Marais
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed July 2, 2007, appealing from the
Office action mailed January 25, 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner that may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

Appellants' brief indicates that an appeal brief was filed on June 27, 2007, for serial no. 10/666,681 (Attorney Docket No. 2043.093US1).

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct. No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

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(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

- Hirooka, Y., et al., "Extending content-based recommendation by order-matching and cross-matching methods," Wlectronic Commerce and Web Technologies, 4-6 Sept. 2000, pp.177-190.

- 2003/0055831 Ryan 3-2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1,10,21,25, and 28 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention.

Evidence that claims 1,10,21,25, and 28 fail(s) to correspond in scope with that which applicant(s) regard as the invention can be found in the reply filed October 16,

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2006. In that paper, applicant has stated argument indicating that a new, unique, or at least different search query is created based on identified terms occurring within an original, first search query and that this new query is used to generate different recommendations than those resulting from the original search query. This indicates that the invention is different from what is defined in the claim(s) because claims 1, 10, 21, 25, and 28 do not include any distinct reference to a new, unique, or at least different search query created based on identified terms occurring within an original, first search query. The claims in their current form suggest one search query and recommendations generated from keywords appearing in that query.

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As discussed above, the language in the claim does not particularly point out and distinctly claim whether the listings are hosted by the network between popularity boundaries or whether the popularity boundaries are derived as a result of their association with the identified term. It cannot be determined whether the listings are initially located between popularity boundaries on the network that are then associated with the identified term, or whether the listings are on the network independently of popularity boundaries with the popularity boundaries derived later via their relationship with the identified term.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 4-11, 21, and 23-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirooka (Hirooka, Y, et al., "Extending content-based recommendation by order-matching and cross-matching methods," W/electronic Commerce and Web Technologies, 4-6 Sept. 2000, PP. 177-90).

Hirooka teaches all the limitations of claims 1-2, 4-11, 21, 23-28. For example, Hirooka discloses a method for generating listing recommendations to a user of a network-based commerce system, including generating queries from identified terms and terms generated from previous user interactions. Hirooka further discloses:

- identifying a term associated with a user interaction in the network-based commerce system: the identified term occurring within a search query (see at least abstract, p.181 section 3.3.1 para.2-3); user interaction includes searching a plurality of listings utilizing the search query (see at least p.181 section 3.3.1 para.2-3); user interaction includes transacting and the identified term occurs

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within a listing to which the transacting relates, including purchasing a product associated with one of the listings (see at least abstract, fig.3.1, p.181 section 3.2, p.182 section 3.3.2 para.1, p.184-185 section 3.5 para.2. Please note: as described and enabled in the present application's specification, bidding is synonymous with buying, which is synonymous with purchasing); identified term is selected based on its existence in a predetermined minimum number of user-generated search queries submitted to the network-based commerce system (see at least p.181 section 3.3.1 para.2-3. Please note: the predetermined minimum could be one. The method disclosed in the prior art requires at least one query and could apply to any number of queries, with the predetermined minimum also potentially representing the number of categories.), minimum number of search queries comprises search queries submitted by a plurality of users (see at least p.179 sections 2.1-2.2, p.180 section 3.1. Please note: collaborative filtering requires a minimum number of users, each of whom has a profile generated as noted above, through the analysis of their queries); identified term comprises a plurality of words (see at least p.182 section 3.3.2 para.2-3 (series of nouns treated as a single keyword). Please note: the nature of the term is not functionally involved in the recited steps of the method. The method is the same regardless. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983). MPEP 2106.).

- identifying the term includes: retrieving data related to a previous user interaction, determining category data related to a listing associated with the previous user interaction, retrieving at least one popular search term associated with the category data, and generating the recommended listing based on the popular search term (see at least abstract, fig.3.1, p.181 section 3.3.1 para.2-3, section 3.2; p.182 section 3.3.2 para.1, para.3; p.183 para.1, p.184-185 section 3.5 para.2. Please note: weighting keywords based on frequency of appearance is the same as determining popularity of the search term); determining if any one of a plurality of popular search terms match any portion of a title of a listing (see at least figs.3.3,3.4; p.182 section 3.3.2); ranking the matches based on popularity of the popular search terms when a plurality of popular search terms match the title (see at least figs.3.3,3.4; p.182-183 section 3.3.2. Please note: For functional purposes, matching a keyword or search term to the title is the same as matching it to any other portion of the item's description. The title could be defined as the description or at least part of the description. The distinction has no functional effect on the method. It is therefore not functionally involved in the recited steps of the method. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983). MPEP 2106.); selecting the popular search term ranked based on its ranking (see at least p.182-183 section 3.3.2.
- automatically generating a recommendation query including the identified term: (see at least abstract).

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- running the recommendation query against a plurality of listings to identify at least one recommended listing: (see at least abstract, p.178 para.2).
- presenting the at least one recommended listing to a user of the network-based commerce system: (see at least p.178 lines 3-5, para.2).
- a communication engine: (see at least p.178 section 1 para.4).
- a database engine: (see at least p.177 section 1).
- a search engine: (see at least p.177 section 1).

Pertaining to system claims 21,23-24, and 28

Rejection of system claims 21,23-24, and 28 is based on the same rationale as noted above.

Pertaining to machine readable medium claims 25-27

Rejection of machine readable medium claims 25-27 is based on the same rationale as noted above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 3, 12-20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirooka in view of Ryan (US Pub. No. 2003/0055831).

Hirooka discloses all of the above as noted under the 102(b) rejection. Hirooka teaches viewing a list of items purchased, viewing a list of items in response to search queries, and making recommendations based on both known information regarding purchases and known information regarding items that were not purchased, but Hirooka does not disclose user interaction including viewing the plurality of listings and the identified term is associated with the listings viewed, and does not disclose a server. Ryan discloses viewing a list of items in response to search queries, and recommendations based on both known information regarding purchases and known information regarding items that were not purchased, and also discloses user interaction including viewing the plurality of listings and the identified term is associated with the listings viewed (see at least abstract, figs.1A,2; p.1 para.0010, p.11 para.0194, p.18 para.0307-0308). Ryan further discloses at least one of the communication engine, database engine and the search engine are provided by at least one server (see at least p.1 para.0003). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Hirooka to incorporate user interaction including viewing the plurality of listings and the identified term being associated with the listings viewed, and the server, as taught by Ryan, in order to

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pursue the objective of finding more recommendations are on target for the user, thereby increasing commerce using the method.

Hirooka discloses all of the above as noted under the 102(b) rejection. Hirooka teaches deriving terms from searches, using terms to generate recommendation queries, running the recommendation query against a plurality of listings to identify at least one recommended listing, and determining popularity of items previously selected. Hirooka, however, does not disclose locating listings with the located listings being between an upper popularity boundary and a lower popularity boundary wherein the upper popularity boundary and the lower popularity boundary are associated with the identified term, determining if the located listings meet at least one predetermined criterion, ranking the located listings meeting the predetermined criterion, and selecting a predetermined number of highest ranked listings for recommendation to the user. Ryan discloses deriving search terms from searches, using terms to generate new recommendation queries, running the query against a plurality of listings to identify at least one recommended listing, and determining popularity of items previously selected. Ryan also teaches locating listings with the located listings being between an upper popularity boundary and a lower popularity boundary wherein the upper popularity boundary and the lower popularity boundary are associated with the identified term, determining if the located listings meet at least one predetermined criterion, ranking the located listings meeting the predetermined criterion, and selecting a predetermined number of highest ranked listings for recommendation to the user (see at least abstract, figs. 1A, 2, 3A; p. 1 para. 0010; p. 4 para. 0077). Ryan further teaches:

- locating listings between an upper popularity boundary and a lower popularity boundary that are associated with the identified term: recommendation query includes the identified term, the lower popularity boundary, and the upper popularity boundary (see at least abstract, figs. 1A, 2, 3A; p. 1 para. 0010; p. 4 para. 0077); lower popularity boundary comprises a corresponding parent level category of the identified term (see at least abstract, p. 7 para. 0116-0120, p. 19 para. 0341, p. 20 para. 0350).
- determining if the located listings meet at least one predetermined criterion: including listings that have a title that contains the identified term (see at least p. 1 para. 0005, p. 9 para. 0152. Also disclosed by Hirooka, see above 102 rejection. Please note: For functional purposes, matching an identified term to the title is the same as matching it to any other portion of the item's description. The title could be defined as the description or at least part of the description. The distinction has no functional effect on the method. It is therefore not functionally involved in the recited steps of the method. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983). MPEP 2106.)); determining if the listing is designated by the network-based commerce system as a listing for mature audiences, is banned by the network-based commerce system (see at least p. 14-15 para. 0251); determining if the listing would be returned in a search relying on the identified popular search term as the search criteria (see at least p. 1 para. 0005, p. 9 para. 0152. Also disclosed

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by Hirooka, see above 102 rejection.); determining if listing time remaining on the network-based commerce system is greater than a predetermined minimum time (see at least p.6 para.0104, p.15 para.0262, p.18 para.0317); determining if the listing is available to the user based on a site through which the user is registered (see at least p.3 para.0050, p.21-22 para.0393).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Hirooka to include locating listings between an upper popularity boundary and a lower popularity boundary that are associated with the identified term, determining if the located listings meet at least one predetermined criterion, ranking the located listings meeting the predetermined criterion, and selecting a predetermined number of highest ranked listings for recommendation to the user as taught by Ryan, in order to find more desirable recommendations for the user, thereby increasing commerce using the method.

Pertaining to system claim 22

Rejection of system claim 22 is based on the same rationale as noted above.

(10) Response to Argument

A. Pertaining to rejection of claims 1,10,21,25, and 28 under 35 USC §112

Appellants argue that the claim language “identifying a term associated with a user interaction... the identified term occurring within a search query,” and “automatically generating a recommendation query including the identified term,” is sufficient to particularly point out and distinctly claim the subject matter which applicant regards as the invention. According to their argument, appellants regard as the invention “a new, unique, or at least different search query” that is “based on identified terms occurring within an original, first search query.” It is noted that this language does not appear in the claims. This indicates that the invention is different from what is defined in the claim(s) because claims 1,10,21,25, and 28 do not include any distinct reference to a new, unique, or at least different search query created based on identified terms occurring within an original, first search query. The claims in their

current form suggest one search query and recommendations generated from keywords appearing in that query. There is nothing to particularly point out and distinctly claim the establishment of two distinct search queries.

B. Pertaining to rejection of claim 12 under 35 USC §112

Appellants have apparently conceded the rejection based on an ambiguity identified in the final office action and they do not argue against the rejection. Appellants however state that they have amended claim 12 to remove the ambiguity and pursuant to this amendment appellants request reversal of the rejection. Claim 12 has not been amended. As stated in section 4 of appellants' brief, and reflected above in section 4 of this document, no amendments have been filed subsequent to the final office action. The rejection should therefore not be reversed.

C. Pertaining to rejection of claims 1,2,4-11,21, and 23-30 under 35 USC §102(b)

Claims 1,21,25, and 28

With regard to claims 1,21,25, and 28, applicants remark that they "cannot find in the cited portions of Hirooka 'identifying a term associated with a user interaction in the network-based commerce system, the identified term occurring within a search query'...". Hirooka cites this element at least at page 181, section 3.3.1 paragraphs 2-3 (Paper # 20060606, page 5 lines 4-6). The reference discusses the customer using different keywords to search in different categories. These are search queries

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containing terms. The searching is an interaction. The isolated keywords are identified terms. The keyword vector is a recommendation query and the results are the recommended listing. See Hirooka, section 3. The identified terms of the reference are derived from search queries as well as other sources. The fact that the reference includes additional steps does not distinguish the present application by virtue of it having fewer steps. Removal of the intermediate steps merely renders the claims broader than the presumed advancement taught by the prior art.

Appellants state with regard to the prior art, "The mere mention of a search query concept does not provide an enabling disclosure...". While it is examiner's position that the disclosure in the prior art is enabling and is sufficient to anticipate the application under appeal, it should also be noted that the term "search query" does not appear in the application's specification at all, making its first appearance in claim 1. The lack of clarity in the claim is therefore again highlighted, because if it is distinguishable from the prior art then it is unclear exactly what the enabled invention is that appellants are attempting to claim.

For the reasons noted above, it is the examiners position that the rejections should be sustained.

Claim 6

With regard to selecting the identified term "based on its existence in a predetermined minimum number of user-generated search queries submitted to the network-based commerce system," appellants argue "Hirooka apparently does not

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obtain terms from prior user queries (search queries) when constructing the vector of keywords for the customer's profile." In response to appellants' argument that the references fail to show certain features of appellants' invention, it is noted that **the feature upon which appellants rely (i.e., to "obtain terms from prior user queries") is not recited in the rejected claim.** Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The claims are directed at terms (keywords) that occur (or exist) within previous queries, not necessarily deriving the terms (keywords) directly from the queries. The language argued is therefore narrower than the language in the claims.

With regard to the language claimed, Hirooka teaches selecting the identified term (keyword) based on its existence in a predetermined minimum number of user-generated search queries submitted to the network-based commerce system (see at least Hirooka pp.181-183, sections 3.3.1-3.3.2). The predetermined minimum could be one. Hirooka teaches generating a customer profile using keywords that the user used to search for desired items. The keywords are selected and weighted based on the number of times they appear. The method disclosed in the prior art requires at least one query and could apply to any number of queries. Hirooka at section 3.3.2 describes in greater detail the creation of keyword vectors, including the predetermination of minimum appearances of a keyword required for weighting calculations.

For the reasons noted above, it is the examiners position that the rejections should be sustained.

Claim 10

Appellants argument is based on the claim language “retrieving at least one popular search term associated with the category data; and generating the recommended listing based on the popular search term.” Hirooka teaches keywords (search terms) associated with category data, and teaches retrieving at least one popular keyword, with popularity determined by frequency of appearance, and generating recommendations based on the keyword (see at least abstract, fig.3.1, p.180-185 sections 3.2, 3.3.1, 3.3.2, section 3.5). Appellants argue that weighting a keyword based on frequency of appearance is not equivalent to determining frequently used search terms. Examiner disagrees and also notes that, although Hirooka teaches the feature as argued, **the feature upon which appellants rely (i.e., determining frequently used search terms) is not recited in the rejected claim.** Although the claim is interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

For the reasons noted above, it is the examiners position that the rejections should be sustained.

Claims 2,4,5,7-9,11,23-24, and 26-27

Appellants rely on their arguments with regard to independent claims 1,21, and 25, from which these claims depend. For the reasons noted above, it is the examiners position that the rejections should be sustained.

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D. Pertaining to rejection of claims 3,12-20, and 22 under 35 USC §103(a)

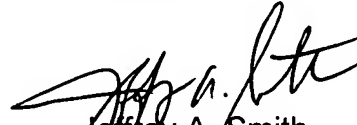
Appellants rely on their arguments with regard to independent claims 1 and 21, from which these claims depend. For the reasons noted above, it is the examiners position that the rejections should be sustained.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

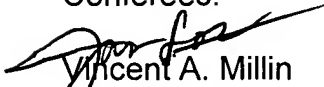
For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



Jeffrey A. Smith
Supervisory Primary Examiner
Art Unit 3625

Conferees:



Vincent A. Millin
Appeal Conference Specialist
TC3600



Jeffrey A. Smith
Supervisory Patent Examiner
Art Unit 3625

Adam L. Levine
Patent Examiner
Art Unit 3625

